NORLITE, LLC

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August 19, 2013

James J. Lansing, Jr.
RCRA Permitting Section- DER
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7251 RETURN RECEIPT REQUESTED: via email

Re: Norlite MACT Notice of Compliance for 2013 Confirmatory Performance Test
EPA ID#: NYD080469935

Dear Mr. Lansing:

In accordance with 40 CFR 63.1210(d), Norlite is submitting this Notice of Compliance for the MACT Confirmatory Performance Test which was conducted on May 21, 2013 electronically. As required by the regulations, the NOC and final report are being provided within 90 days from the completion of the test. A paper copy of the report will be provided within the next couple of days.

If after review of the final report you should have any questions or comments, please do not hesitate to contact me at tom.vanvranken@tradebe.com or at 518-235-0401.

Sincerely,

Thomas M. Van Vranken

Thomas M. Van Vranken
Environmental Manager

Attachments
ecc: Joseph Hadersbeck, NYSDEC
Don Spencer, NYSDEC
Nancy Baker, NYSDEC
Tita LaGrimas, Tradebe
William Morris, Norlite
Dana Maikels, NYSDEC

AECOM Environment

Prepared for:
Norlite LLC
628 South Saratoga St.
Cohoes, NY 12047

Prepared by:
AECOM
Chelmsford, MA
60286979, Task 4
August 2013

Final Confirmatory Performance Test Report and Notification of Compliance for Lightweight Aggregate Kilns 1 and 2

4.0 Process Operating Conditions

4.1 Overview of Planned Test Condition

The test program was designed to confirm compliance with the applicable MACT dioxin/furan emission standard as fully described in the CfPT plan. A single kiln operating condition was planned for the confirmatory test with target operating parameters being representative of normal LWAK operations at the facility and using normally generated LLGF.

The target operating conditions for the test were based upon a review of approximately 12 months of operating data (February 2012 through January 2013) prior to submittal of the CfPT Plan in April 2013. These data were presented in detail in the approved CfPT Plan. Actual operating levels achieved for the test are discussed below under facility monitoring data.

4.2 Facility Monitoring Data

Norlite monitored all required operational parameters for the LWAK as done on a continuous basis during normal operations. Kiln # 1 was lined out at steady operation for at least one hour prior to the test to ensure that the testing could be conducted with minimal interruption. A summary of the target conditions and actual operating levels for key parameters is presented below in **Table 4-1**. Detailed process data for all three sampling runs are provided in **Appendix B**.

Table 4-1 Process Data Summary for the May 2013 CfPT

MACT OPLs [a]	Units	MACT Limit	Feb 2012 - Jan 2013 Average	CfPT Target	CfPT Actual
Max. LLGF Feed Rate	gpm	10.3	8.22	9.0	9.64
Min. Kiln Backend Temperature	°F	896	937	910	910
Max. Kiln Production (Shale Feed) Rate	tph	22.0	15.1	19.0	20.1
Max. Flue Gas Flowrate	wet scfm	45,000	28,044	38,000	36,197
(1) Max. Heat Exchanger Exit Temperature	°F	453	405	420	420
Max. CO conc. @ 7% Oxygen	ppm	100	43.6	50	40.9
Other Parameters					
Min. LLGF Atomization Pressure	psig	52.0	77.3	NA	82.6
Max. Total Chlorine Feed Rate	lb/hr	82.3	NA	60	73.2
Max. Total Mercury Feed Rate	lb/hr	0.036	NA	NA	NA
Max. Total LVM (As, Be & Cr) Feed Rate	lb/hr	16.6	NA	NA	NA
Max. Total Pumpable LVM Feed Rate	lb/hr	5.55	NA	NA	NA
Max. Total SVM (Cd & Pb) Feed Rate	lb/hr	29.3	NA	NA	NA
Max. Baghouse Inlet Temperature	°F	399	376	NA	385
(2) Min. Venturi Pressure Drop	in. w.c.	2.9	6.7	NA	6.1
Min. Scrubber Blowdown Rate	gpm	15.0	19.5	NA	19.2
(3) Min. Scrubber Tank Liquid Level	% Ht.	43	57	NA	56
Min. Scrubber Recirculation Rate	gpm	180	211	NA	218
(4) Min. Scrubber Liquid to Gas Ratio	gal/10^3 ft^3	4.0	11.5	NA	6.0
Min. Scrubber Liquid pH	pH units	8.0	8.5	NA	8.5
Min. Dry Sorbent Feed Rate	lb/hr	270	300	NA	300
Min. Dry Sorbent Carrier Fluid Flow Rate	cfm	152	213.2	NA	220.8

[a] MACT operating parameter limits established to ensure compliance with the PCDD/PCDF emission standard.

NA = Not applicable for the CfPT

4.3 MACT Operating Parameter Limits

The purpose of a MACT confirmatory performance test is only to confirm compliance with the PCDD/PCDF emission standard through operation under normal parameters as established by reviewing 12 months' of prior operating data. The CfPT is not intended to re-establish any OPLs and as such, all operating limits previously established during the October 2010 / January 2011 CPT remained in effect during the CfPT and will remain in place until the next CPT. A summary of the current set of OPLs used to ensure continuous compliance with all MACT emission standards is presented below in **Tables 4-2 and 4-3**.

Table 4-2 Current MACT Operating Parameter Limits for the Combustion System

Process Parameter	Units	Avg. Period (a)	How Limit Established (b)	Current Limit
Maximum Total (and Pumpable) Hazardous Waste Feed Rate	gpm	1-hr (HRA)	Avg. of **max. HRA** for each run	10.3
Minimum LLGF Feed Atomization Pressure	psig	1-hr (HRA)	Manufacturer's recommendation	52.0
Minimum Kiln Backend Temperature	°F	1-hr (HRA)	Avg. of the test run averages	896
Maximum Heat Exchanger Exit Temperature	°F	1-hr (HRA)	Avg. of the test run averages	453
Maximum Flue Gas Flow Rate	wet scfm	1-hr (HRA)	Avg. of **max. HRA** for each run	45,000
Maximum Kiln Production (Shale Feed) Rate	tph	1-hr (HRA)	Avg. of **max. HRA** for each run	22.0
Maximum Total Chlorine Feed Rate	lb/hr	12-hr (RA)	Avg. of the test run averages	82.3
Maximum Total Mercury Feed Rate	lb/hr	12-hr (RA)	Metals Extrapolation	0.036
Maximum Total LVM (As, Be & Cr) Feed Rate	lb/hr	12-hr (RA)	Metals Extrapolation	16.6
Maximum Total Pumpable LVM (As, Be & Cr) Feed Rate	lb/hr	12-hr (RA)	Metals Extrapolation	5.55
Maximum Total SVM (Cd & Pb) Feed Rate	lb/hr	12-hr (RA)	Metals Extrapolation	29.3
Maximum CO concentration corrected to 7% oxygen	ppm	1-hr (HRA)	Regulatory Citation	100

Notes:

(a) HRA = hourly rolling average; RA = rolling average

Table 4-3 Current MACT Operating Parameter Limits for the APCS

Process Parameter	Units	Avg. Period (a)	How Limit Established (b)	Current Limit
Maximum Baghouse Inlet Temperature	°F	1-hr (HRA)	Avg. of the test run averages	399
Minimum Venturi Pressure Drop	in. w.c.	1-hr (HRA)	Avg. of the test run averages	2.9
Minimum Scrubber Blowdown Rate	gpm	1-hr (HRA)	Avg. of the test run averages	15.0
Minimum Scrubber Tank Liquid Level	% Ht.	1-hr (HRA)	Avg. of the test run averages	43
Minimum Scrubber Recirculation Rate	gpm	1-hr (HRA)	Avg. of the test run averages	180
Minimum Scrubber Liquid to Gas Ratio	gal/10^3 ft^3	1-hr (HRA)	Avg. of the test run averages	4.0
Minimum Scrubber Liquid pH	pH units	1-hr (HRA)	Avg. of the test run averages	8.0
Minimum Dry Sorbent Feed Rate	lb/hr	1-hr (HRA)	Avg. of the test run averages	270
Minimum Dry Sorbent Carrier Fluid Flow Rate	cfm	1-hr (HRA)	Avg. of the test run averages	152

Notes:

(a) HRA = hourly rolling average